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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,544	05/01/2001	Michael Hollatz	00EC065/79244	4119
24628	7590	11/10/2005	EXAMINER NG, CHRISTINE Y	
WELSH & KATZ, LTD 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			ART UNIT 2663	
PAPER NUMBER				

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/846,544	Applicant(s) HOLLATZ, MICHAEL	
	Examiner Christine Ng	Art Unit 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,707,821 to Shaffer et al in view of U.S. Patent No. 6,741,586 to Schuster et al, and in further view of U.S. Patent No. 6,845,105 to Olsson et al.

Referring to claims 1, 31, 44-47 and 57, Shaffer teaches in Figure 13 a portion of a device, e.g., implemented on a IP phone, that multiplexes VoIP packets and other data packets onto a common data link using a priority queuing mechanism. The VoIP packets are created by digitally encoding a voice capture channel using an analog to digital converter (22) and a voice encoder (122). Data packets are received from other applications running on the computer, e.g., a web-browser, e-mail application, or networked file system application (receiving data packets from data processing device) (Column 1, lines 50-59). Data packets pass through an optional data packet fragmenter (146), which segments large data packets into sequences of smaller data packets before submission to the queue (dividing the data packets into divided data packets) (Column 9, lines 9-14). The packet scheduler (144) multiplexes packets from the queues (106,108) to the data link interface (interspersing the divided packets among the voice packets and sending the data packets and the voice packets to a communication

network) (Figure 6). Shaffer et al also disclose assigning a first predetermined priority level (highest priority) to the voice packets. The voice packets from time-critical packet queue 106 are given a higher priority than the data packets from data packet queue 108. Refer to Column 5, lines 16-37 and Column 9, lines 1-14.

Shaffer does not specifically disclose receiving data packets from a *plurality* of data processing devices.

Schuster et al disclose in Figure 1 a VOIP phone 108a that receives data packet from a plurality of data processing devices (user computer 50 and PDA 110a). Refer to Column 6, line 40 to Column 7, line 7 and Column 7, lines 57-67. Furthermore, as shown in Figure 3, a VOIP phone 108a includes interfaces (248, 254, 256, 267, 265, 262, 264, 96) to several different devices. Refer to Column 11, line 49 to Column 12, line 63. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include receiving data packets from a *plurality* of data processing devices; the motivation being so that a system can support several different types of devices, thereby diversifying the system.

Shaffer also does not disclose: assigning a second priority level to data packets from a first data processing device of the plurality of data processing devices and a third priority level to data packets from a second data processing device of the plurality of data processing devices where the first, second and third priority levels are all different; and sending the data packets based upon respective priorities of the voice packets and the data packets.

Olsson et al disclose in Figure 1 a node with queues 111-114 ranging from low to high priority. Voice packets are assigned to the highest priority queue. Packets of successively lower priorities are assigned to successively lower priority queues. Packets associated with non-real time data are placed in a separate best efforts queue. Process 131 sends packets out according to priority levels, with the high priority outbound packet 118a from the highest priority queue 114 being sent out first, and best effort packets being sent out when there are no higher priority packets to be sent. Refer to Column 5, line 53 to Column 6, line 10; and Column 6, lines 41-54. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include assigning a second priority level to data packets from a first data processing device of the plurality of data processing devices and a third priority level to data packets from a second data processing device of the plurality of data processing devices where the first, second and third priority levels are all different; and sending the data packets based upon respective priorities of the voice packets and the data packets. One would be motivated to do so in order to prioritize packets so that time critical data such as voice is sent out first, followed by successively lower priority packets, thereby ensuring that real time data is sent with the highest quality of service and non-real time data is sent last, since it is not time sensitive.

Referring to claim 5 and 48, Shaffer teaches in Figure 10 the method described in reference to claims 1 and 44 that the first and second data processing device may be selected from a group consisting of a computer (78), a laptop computer (none), a

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personal digital assistant (none), or a cellular telephone (none). Refer to Column 7, lines 57-64.

Referring to claims 6-9, 15, 20, 21, 25-27, 32, 49, 50, 55 and 58, Shaffer teaches in Figure 6 the method described in reference to claims 1, 31 and 44 above and also teaches that the scheduler selects time-critical packets from queue 106 (the Voice Packet queue) until queue 106 is emptied (voice packets have a higher priority than data packets and are processed before the data packets, the priority is assigned based upon how the packets are processed and preference is given to voice packets). Refer to Column 5, lines 16-37.

Referring to claims 10, 18, 28, 33 and 54, Shaffer teaches in Figure 10 the method described in reference to claims 1, 15, 20, 31 and 44 above and also teaches that the network is an Internet Protocol network (100). Refer to Column 7, lines 31-34.

Referring to claim 17, Shaffer teaches in Figure 10 the method described in reference to claim 15 above that the first and second data processing device may be selected from a group consisting of a computer (78), a laptop computer (none), a personal digital assistant (none), or a cellular telephone (none). Refer to Column 7, lines 57-64.

Referring to claims 36 and 59, Shaffer teaches in Figure 13 the method described in reference to claim 1 above that data link 74 is clearly a two-way path. The network described is clearly a two-way network that can both transmit data or receive data from another source.

Referring to claim 38, Shaffer teaches in Figure 10 the method described in reference to claim 36 above that the first and second data processing device may be selected from a group consisting of a computer (78), a laptop computer (none), a personal digital assistant (none), or a cellular telephone (none). Refer to Column 7, lines 57-64.

Referring to claim 39, Shaffer teaches in Figure 6 the method described in reference to claim 36 above and also teaches that the scheduler selects time-critical packets from queue 106 (the Voice Packet queue) until queue 106 is emptied. Refer to Column 5, lines 16-37.

Referring to claim 40, Shaffer teaches in Figure 10 the method described in reference to claim 36 above and also teaches that the network is an Internet Protocol network (100). Refer to Column 7, lines 31-34.

Referring to claim 56, Shaffer teaches in Figure 13 the method described in reference to claim 1 above and also teaches that the VoIP packets are created by digitally encoding a voice capture channel, e.g., from a microphone or headset, (user interface) using an analog-to-digital converter (22) and a voice encoder (122). Refer to Column 1, lines 53-56.

Referring to claims 3, 4, 23, 24, 37 and 52, Shaffer teaches the method described in reference to claims 1, 20, 36 and 44 above and also teaches in Figure 4 that the two data packets have been divided into 3 equal parts and 1 unequal part.

Referring to 2, 16, 22 and 51, Shaffer teaches the method described in reference to claims 1, 15, 21 and 44 above and also teaches in another embodiment that when a

scheduler has difficulty scheduling a large data packet for transmission, the scheduler may submit the packet to a fragmenter for fragmentation. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art that if the size of a packet is too large, as determined by a threshold established in the scheduler, then the packet would be fragmented to help eliminate the scheduling difficulty (column 9, lines 9-14).

Referring to claims 11-14, 19, 29, 30, 34, 35, 41-43 and 53, Shaffer teaches in Figure 10 the method described in reference to claims 1, 15, 20, 31, 36 and 44 above and also has clearly taught that the network is an Internet Protocol network (100). Refer to Column 7, lines 31-34. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art that the Ethernet protocol is used in networks using the Internet Protocol. One of ordinary skill in the art would have been motivated to use the Ethernet Protocol on an Internet Protocol network is a well-known industry practice.

Response to Arguments

3. Applicant's arguments filed July 14, 2005 have been fully considered but they are not persuasive.

Referring to the argument that independent claims 1, 15, 20, 31, 36, 44, 56, 57, 58 and 59 are "limited to the context of a voice over packet network telephone" (page 19, lines 12-19), refer to Shaffer et al, Figures 10 and 13. The IP phone 80 in Figure 10 reads on the "voice over packet network telephone". As shown in Figure 13, the IP phone 80 also performs the steps of transmitting voice and data packets, assigning

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priority to voice packets (packet scheduler 144), and fragmenting data packets if necessary (data packet fragmenter 146). Refer to Column 7, lines 57-64 and Column 9, lines 1-14.

Referring to the argument of independent claims 1, 15, 20, 31, 36, 44, 56, 57, 58 and 59 that Shaffer et al only show a single data processing unit 78 connected to an IP phone (page 19, line 26 to page 30, line 35), refer the to newly cited reference, U.S. Patent No. 6,741,586 to Schuster et al.


Referring to the argument of independent claims 1, 15, 20, 31, 36, 44, 56, 57, 58 and 59 regarding predetermined priorities (page 20, line 36 to page 22, line 23), refer to Olsson et al, Column 6, lines 41-54. Priority is assigned to packets based on QoS, but the QoS depends on the packet type, which is predetermined. Real-time packets are assigned predetermined high levels of QoS whereas non real-time packets are assigned predetermined low levels of QoS. Priorities are assigned to data processing devices since data processing devices providing real-time packets are given higher priority than data processing devices providing non real-time packets. Olsson et al disclose that multiple priority levels are assigned to packets, so that packets with "progressively greater degrees of time sensitivity may be scheduled in progressively higher priority queues..." (Column 6, lines 47-48). The time sensitivity of the packets is predetermined depending on packet type.

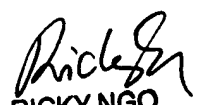
Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng 
November 4, 2005


RICKY NGO
PRIMARY EXAMINER
11/4/05